EXAMINER'S AMENDMENT

1.　　An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Pedro F. Suarez (45,895) on 05/19/2009.

2.　　The application has been amended as follows:

1. (Currently Amended) A computer-implemented communication method,

comprising:

providing one or more requests for acknowledgement in an asynchronous

request message transmitted from an application-level of a sender system, wherein

each request for acknowledgement corresponds to at least one event related to the

request message, the asynchronous request message for enterprise application-level

processing of the asynchronous request message at a receiver system, the request

message being in a format in accordance with extensible markup language format;

transmitting the request message with the one or more requests for

acknowledgement to the receiver system, the receiver system being an enterprise

system providing services, the request to request one or more of the services of the

receiver system to process the asynchronous request message, and the transmitting

the request message comprising transmitting the request message in an exchange

infrastructure for communication among components of collaborative business systems,

the components comprising the sender system and the receiving system; ~~and~~

splitting, at one or more network components between the sender system and

the receiver system, the request message that is transmitted into two or more child

messages, wherein each child message includes the one or more requests for

acknowledgement; and

receiving an acknowledgment message responsive to the request message and

related to each child message, the acknowledgement message received, based on the

split, are transported transparently to the sender system, the acknowledgement

message being an application-level message sent by the receiver system of the request

message, the acknowledgement message being in a format in accordance with

extensible markup language format, the acknowledgement message sent to the sender

system of the request message, and the acknowledgement message having different

types, each type characterizing an application state, the application states comprising:

a state indicating the request message was processed correctly in an application

of the receiver system,

a state indicating the request message processed with error in the application of

the receiver system,

a state indicating processing of the request message canceled after error,

a state indicating a system error occurred during processing of the request

message, and

a state indicating an outbound adapter of the receiver system does not support

application acknowledgments.

2. (Original) The method in accordance with claim 1, wherein requesting

an acknowledgement includes setting a flag in a header of the request message.

3. (Original) The method in accordance with claim 2, wherein the flag is

set in a header of the asynchronous request message.

4. (Original) The method in accordance with claim 1, wherein the event

includes a system error during transport of the request message to the receiver system.

5. (Original) The method in accordance with claim 1, wherein the event

includes the receipt of the request message by the receiver system.

6. (Original) The method in accordance with claim 1, wherein the event

includes the successful processing of the request message by an application associated

with the receiver system.

7. (Original) The method in accordance with claim 1, wherein the event

includes the erroneous processing of the request message by an application associated

with the receiver system.

8. (Original) The method in accordance with claim 1, further comprising

generating the acknowledgement message upon completion of the event.

9. (Original) The method in accordance with claim 8, further comprising

transmitting the acknowledgement message to the sender system.

10. (Original) The method in accordance with claim 1, further comprising:

generating a hoplist that includes a list of network components through which the

request message is transmitted; and

transmitting an acknowledgement message related to each request for

acknowledgement through network components corresponding to the hoplist.

11. (Canceled).

12. (Currently Amended) A computer-implemented communication method for

acknowledging one or more events related to an asynchronous request message sent

from a sender system to a receiver system, the method comprising:

receiving an asynchronous request message from the sender system, the

asynchronous request message being an enterprise application-level message;

wherein transmitting the asynchronous request message from the sender system

to the receiver system further comprises splitting, at one or more network components

between the sender system and the receiver system, the request message that is

transmitted into two or more child messages, wherein each child message includes the

one or more requests for acknowledgement;

determining, based on the asynchronous request message, whether an

acknowledgement to an event associated with the asynchronous request message is

requested; and

if an acknowledgement to the event associated with the asynchronous request

message is requested, transparently transmitting an asynchronous acknowledgement

message related to each child message based on the split, to the sender system upon

occurrence of the event, wherein the asynchronous acknowledgement message

includes a result of the event and a reference to the asynchronous request message,

the asynchronous acknowledgement message having different types, each type

characterizing an application state, the application states comprising:

a state indicating the asynchronous request message was processed

correctly in an application of the receiver system,

a state indicating the asynchronous request message processed with error

in the application of the receiver system,

a state indicating processing of the asynchronous request message

canceled after error,

a state indicating a system error occurred during processing of the

asynchronous request message, and

a state indicating an outbound adapter of the receiver system does not

support application acknowledgments.

13. (Original) The method in accordance with claim 12, wherein the event

corresponds to one or more events selected from the event group that consists of:

the receipt of the asynchronous request message by the receiver system;

a system error during transport of the request message to the receiver system;

the successful processing of the request message; and/or

the erroneous processing of the request message.

14. (Original) The method in accordance with claim 12, wherein the

asynchronous acknowledgement message is generated by the receiver system, and

further comprising receiving the asynchronous acknowledgement message from the

receiver system.

15. (Original) The method in accordance with claim 14, further comprising

matching the asynchronous acknowledgement message with the associated

asynchronous request message.

16. (Original) The method in accordance with claim 15, wherein matching

the asynchronous acknowledgement message with the associated asynchronous

request message includes comparing the reference to the asynchronous request

message with a message ID of a copy of the asynchronous request message.

17. (Original) The method in accordance with claim 12, wherein determining

whether the sender system requests an acknowledgement to an event associated with

the asynchronous request message includes reading a flag in a header of the

asynchronous request message.

18. (Original) The method in accordance with claim 17, wherein the flag is

set by the sender system.

19. (Currently Amended) A system for asynchronous communication

between a sender system and a receiver system, comprising:

a forward pipeline for transmitting asynchronous request messages from the

sender system to the receiver system, the asynchronous request messages being

enterprise application-level messages; ~~and~~

<u>splitting, at one or more network components between the sender system and</u>

<u>the receiver system, the request message that is transmitted into two or more child</u>

messages, wherein each child message includes the one or more requests for

acknowledgement; and

a backward pipeline for transparently transmitting asynchronous

acknowledgement messages related to event associated with each child message

based on the split, from the receiver system to the sender system, wherein each

acknowledgement message includes a reference to a request message and a result of

an event associated with the request message, the asynchronous acknowledgement

messages having different types, each type characterizing an application state, the

application states comprising:

a state indicating an asynchronous request message was processed

correctly in an application of the receiver system,

a state indicating the asynchronous request message processed with error

in the application of the receiver system,

a state indicating processing of the asynchronous request message

canceled after error,

a state indicating a system error occurred during processing of the

asynchronous request message, and

a state indicating an outbound adapter of the receiver system does not

support application acknowledgments.

20. (Original) The system in accordance with claim 19, further comprising

an enterprise application integrator hosted on a server, and wherein the forward pipeline

includes a first HTTP connection from the sender system to the server and a second

HTTP connection from the server to the receiver system.

21. (Original) The system in accordance with claim 19, wherein the

backward pipeline includes a first HTTP connection from the receiver system to the

server and a second HTTP connection from the server to the sender system.

22. (Original) The system in accordance with claim 19, further comprising

a database associated with the forward and backward pipelines, for storing a copy of

each transmitted request message and each transmitted acknowledgement message.

23. (Previously Presented) The method in accordance with claim 1,

wherein the asynchronous request message comprises a plurality of requests

comprising a first request for acknowledgement of a state of processing of the

asynchronous request message at a software application of the receiver system and

each of the requests is to result in a separate acknowledgment message.

24. (Previously Presented) The method in accordance with claim 23,

wherein the first request is a request for acknowledgement of whether the software

application failed to process the message.

25. (Previously Presented) The method in accordance with claim 1,

wherein the components are web-based applications.

26. (Currently Amended) The method in accordance with claim 1,

wherein the transmitting of the asynchronous request message is initiated by an

outbound proxy call to an exchange engine to transmit the asynchronous request

message to an exchange infrastructure server, the exchange infrastructure stores

duplicates of the asynchronous request message for ~~reexecution~~ <u>re-execution</u> in case of

error, and an application of the sender system that causes the call of the outbound

proxy continues processing information other than the asynchronous request message

without an acknowledgment from the receiver system of status of the call.

Allowable Subject Matter

3.   Claims 1-10 and 12-26 are allowed.

        The following is a statement of reasons for the indication of allowable subject

matter: The claimed invention is directed toward a computer-implemented

communication method, comprising: providing one or more requests for

acknowledgement in an asynchronous request message transmitted from an

application-level of a sender system, wherein each request for acknowledgement

corresponds to at least one event related to the request message, the asynchronous

request message for enterprise application-level processing of the asynchronous

request message at a receiver system, the request message being in a format in

accordance with extensible markup language format; transmitting the request message

with the one or more requests for acknowledgement to the receiver system, the

receiver system being an enterprise system providing services, the request to request

one or more of the services of the receiver system to process the asynchronous request

message, and the transmitting the request message comprising transmitting the request

message in an exchange infrastructure for communication among components of

collaborative business systems, the components comprising the sender system and the

receiving system; splitting, at one or more network components between the sender

system and the receiver system, the request message that is transmitted into two or

more child messages, wherein each child message includes the one or more requests

for acknowledgement; and receiving an acknowledgment message responsive to the

request message and related to each child message, the acknowledgement message

received, based on the split, are transported transparently to the sender system, the

acknowledgement message being an application-level message sent by the receiver

system of the request message, the acknowledgement message being in a format in

accordance with extensible markup language format, the acknowledgement message

sent to the sender system of the request message, and the acknowledgement message

having different types, each type characterizing an application state, the application

states comprising: a state indicating the request message was processed correctly in an

application of the receiver system, a state indicating the request message processed

with error in the application of the receiver system, a state indicating processing of the

request message canceled after error, a state indicating a system error occurred during

processing of the request message, and a state indicating an outbound adapter of the

receiver system does not support application acknowledgments.

4.   In specific, the prior art of record taking singly or in combination does not teach

or suggest a combination method of transmitting the request message with the one or

more requests for acknowledgement to the receiver system, the receiver system being

an enterprise system providing services, the request to request one or more of the

services of the receiver system to process the asynchronous request message, and the

transmitting the request message comprising transmitting the request message in an exchange infrastructure for communication among components of collaborative business systems, the components comprising the sender system and the receiving system; splitting, at one or more network components between the sender system and the receiver system, the request message that is transmitted into two or more child messages, wherein each child message includes the one or more requests for acknowledgement; and receiving an acknowledgment message responsive to the request message and related to each child message, the acknowledgement message received, based on the split, are transported transparently to the sender system. Therefore, the closest prior art of record (i.e: Ankireddipally et al. (Patent no.: US 6,772,216 B1), Frymier (Patent no.: US 5,604,487), Ho et al. (publication no.: US 2003/0135640 A1) and Wilhelmsson (Patent no.: US 5,654,969)) taking singly or in combination does not teach or suggest these features. Based on this reasoning, claim 1 is allowable over the prior art of record.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN LIU whose telephone number is (571)270-1447. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Srivastava Vivek can be reached on (571) 272-7304. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin Liu/   /Patrice Winder/
Examiner, Art Unit 2445   Primary Examiner, Art Unit 2445